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Ref: 552-OD-260

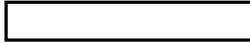
18 August 1965

STAT



Progress Report - July 1965  
Projects 552 and 552A

Gentlemen,

Enclosed are three (3) copies of  Progress  
Report On Projects 552 and 552A for the period July 1965.

STAT

Very truly yours,



STAT

Vice President - Operations

LHB/de

Enc: (3) P.R.

Cert #743893

**Declass Review by  
NIMA/DOD**

PROGRESS REPORT  
For  
VERSATILE, HIGH PRECISION STEREO  
POINT TRANSFER DEVICE

Period Covered: July 1965  
Dated: 17 August 1965  
Job No.: #552 and #552A  
Document No.: OD-258

PROGRESS REPORT  
For  
VERSATILE, HIGH PRECISION STEREO  
POINT TRANSFER DEVICE

Alignment, test and debugging, and preparation for customer evaluation of system have been done on a companion Stereo Viewer this month. Our annual vacation was in this reporting period, reducing the work accomplished on the system.

OBJECTIVE ASSEMBLY

Antivignetting filters have been received and installed. They appear to attenuate "hot spot" well, although some graduation of center to edge brightness remains.

Sound conditioning material was added to inside of covers to dampen image enhancer noise with some improvement noticed.

Dot reticle was studied again with the conclusion that much of the flare is due to internal reflections in 60X microscope lens used to make reduced image of iris. After attempting to modify lens to reduce this problem we believe such changes should be done at the factory because lens elements are damaged when removed from their mounts. Other lenses that were investigated for improvement of internal reflections were found to be inferior to one selected for system.

Other work done has been to use optics and made adjustments as needed.

EYEPiece ASSEMBLY

Sound conditioning material has been added to inside of covers to minimize image enhancer noise. Extended use and minor adjustments have been done to check out system for evaluation.

Dot reticle alignment appears to have a small change with time, use, and eyepiece assembly position. Because this is in the order of a few arc minutes, we believe this is not a serious problem. The changes, of course, can be accelerated by careless handling by the operator.

JOYSTICK ASSEMBLY

Brakes to control azimuth rotation have been added. Independent right and left hand channel rotation locks are thumb screw actuated and easily adjusted when necessary. Thumb screws are located so they will not pinch fingers while gripping joystick handle at extreme deflection.

COORDINATE COUNTERS

A switch has been added to the control cabinet, front panel, to shut off operation of all carriage coordinate counters.

Work for the Next Reporting Period

1. Complete scanning drive, mechanical and electric modifications.
2. Study and search for various optical and manufacturing techniques that may minimize groove visibility of vacuum film holddown platen.
3. Design, fabricate and install ruggedized vacuum manifold and plumbing changes.
4. Complete optical debugging.
5. Complete system debugging.

ATTACHMENTS:

1. Financial Report
2. Customer Review, Document 552 - CD-129

17 August 1965  
552 - CD-129  
WWB:rf

CUSTOMER REVIEW

Date: 16 July 1965

- 1) Customer's representatives inspected and operated system. Equipment operated with no malfunctions.
- 2) Stereo tracking, or correspondence was found poor, operator correction can be quickly made.
- 3) Joystick azimuth lock pinches operator's hand.
- 4) Customer had the following comments for system improvement:
  - a) Wants switch added for shutting off carriage coordinate counters.
  - b) Dot reticle flare excessive right channel.
  - c) Wants image enhancer operation quieter.
  - d) Joystick locks slip due to usage.